AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-31. (Canceled)

32. (Currently Amended) A method for producing substantially monodisperse micro particles, mainly of a heat sensible material, said method comprising at least the steps of:

feeding a feed material comprising a volatile liquid to at least one orifice, said feed material being selected from the group consisting of a solution, a dispersion or a suspension,

ejecting the feed material from the orifice as single micro spheres having diameters of substantially the same size,

wherein the micro spheres ejected from the orifice is subjected to a stream of a carrier gas encircling the orifice, carrying the micro spheres onwards into a drying chamber, where the micro spheres is further subjected to a drying gas causing evaporation of the volatile liquid and drying of the micro spheres into solid particles in the drying gas in the drying chamber.

33. (Previously presented) The method of Claim 32, wherein the temperature of the carrier gas in the area in front of the orifice is lower than the temperature of the drying gas in the drying chamber.

34. (Currently Amended) The method of Claim 32, wherein the inlet temperature of the carrier gas is in a range below 40°C~~, preferably in a range below 25°C~~.

35. (Previously presented) The method of Claim 32, wherein the inlet temperature of the drying gas is in the range from 25 to 250°C.

36. (Previously presented) The method of Claim 32, wherein the inlet temperature of the drying gas is in the range from 30 to 120°C.

37. (Previously presented) The method of Claim 32, wherein the inlet temperature of the drying gas is in the range from 40 to 80°C.

38. (Previously presented) The method of Claim 32, wherein the drying gas is introduced into the drying chamber at an area below the area where the carrier gas is introduced.

39. (Previously presented) The method of Claim 32, wherein the velocity of the carrier gas is less than 50 m/s.

40. (Previously presented) The method of Claim 32, wherein the velocity of the carrier gas is less than 10 m/s.

41. (Previously presented) The method of Claim 32, wherein the carrier gas disperses the generated micro spheres into the drying gas.

42. (Previously presented) The method of Claim 32, wherein the carrier gas encircles the orifice in a swirling motion.

43. (Previously presented) The method of Claim 42, wherein said swirling motion has a swirl number > 0,5.

44. (Previously presented) The method of Claim 42, wherein said swirling motion has a swirl number > 1.

45. (Previously presented) The method of Claim 42, wherein said swirling motion has a swirl number > 2.

46. (Previously presented) The method of Claim 32, wherein the flow of said drying gas includes a substantially laminar flow in the drying chamber.

47. (Previously presented) The method of Claim 41 wherein the velocity of the substantially laminar flow is < 0,5 m/s.

48. (Previously presented) The method of Claim 41 wherein the velocity of the substantially laminar flow is < 0,3 m/s.

49. (Previously presented) The method of Claim 32, wherein an oscillating device acts on the feed.

50. (Previously presented) The method of Claim 49, wherein the oscillating device includes one or more piezo electric crystals.

51. (Previously presented) The method of Claim 32, wherein an oscillating device acts on a feed device having said orifice located at a delivery end.

52. (Previously presented) The method of Claim 51, wherein the oscillating device includes one or more piezo electric crystals.

53. (Previously presented) The method of Claim 32, wherein an oscillating device acts on the feed and on a feed device having said orifice located at a delivery end.

54. (Previously presented) The method of Claim 53, wherein the oscillating device includes one or more piezo electric crystals.

55. (Previously presented) The method of Claim 32, wherein the carrier gas and the drying gas are selected from the group consisting of atmospheric air, nitrogen, argon, helium, carbon dioxide, and mixtures thereof.

56. (Previously presented) The method of Claim 32, wherein the carrier gas and the drying gas are selected from the group consisting of sterilized atmospheric air, sterilized nitrogen, sterilized argon, sterilized helium, sterilized carbon dioxide, and mixtures thereof.

57. (Previously presented) The method of Claim 32, wherein the carrier gas is a saturated gas.

58. (Previously presented) The method of Claim 32, wherein the yield of said heat sensible material is higher than 90% of the theoretical yield.

59. (Previously presented) The method of Claim 32, wherein the yield of said heat sensible material is higher than 95% of the theoretical yield.

60. (Previously presented) The method of Claim 32, wherein the particles have a particle size distribution with a span < 0,5.

61. (Previously presented) An apparatus producing substantially monodisperse micro particles, mainly of a heat sensible material, and comprising a drying chamber having at least one inlet for a drying gas, and at least one feed device with an orifice for ejecting micro spheres one by one, wherein the feed device has a feeding end for receiving feeding material and a delivery end with an orifice for ejecting micro spheres of feeding material, that the feed device is surrounded by an outer tube with an air gap between an outer surface of the feed device and an inner surface of the tube, and at least one inlet for carrier gas to said air gap.

62. (Previously presented) The apparatus of Claim 61, wherein the feed device includes a oscillation device capable of generating mutual oscillation between the feeding material and the feeding end of the feed device.

63. (Previously presented) The apparatus of Claim 61, wherein the oscillation device includes oscillating means in the form of one or more piezo electric crystals.

64. (Previously presented) The apparatus of Claim 61, wherein the feed device in the tube is mounted in an upper end wall of the drying chamber with a longitudinal axis of the tube extending in parallel with a longitudinal axis of the drying chamber.

65. (Previously presented) The apparatus of Claim 61, wherein the feed device in the tube is mounted in an upper end wall of the drying chamber with a longitudinal axis of the tube extending in parallel with a longitudinal axis of the drying chamber, and coaxially therewith.

66. (Previously presented) The apparatus of Claim 61, wherein the at least one inlet for drying gas is located at a level below the orifice at the delivery end.

67. (Previously presented) The apparatus of Claim 61, wherein the apparatus comprises a plurality of feed devices for generating micro spheres, arranged in the upper end wall of the drying chamber.

68. (Previously presented) The apparatus of Claim 61, wherein the apparatus comprises 2 to 8 feed devices for generating micro spheres, said feed devices being arranged in the upper end wall of the drying chamber.

69. (Previously presented) The apparatus of Claim 61, wherein the diameter of the drying chamber is increased at a level below the inlet for drying gas.

70. (Previously presented) The apparatus of Claim 61, wherein the volume of the drying chamber is less than 0.10 m^3, and larger than 0.03 m^3, when the produced particles have a mean particle size in the range of 1-59 μm.

71. (Previously presented) The apparatus of Claim 61, wherein the volume of the drying chamber is less than 0.30 m^3, and larger than 0.1 m^3, when the produced particles have a mean particle size in the range of 60-120 μm.

72. (Previously presented) The apparatus of Claim 61, wherein the at least one inlet for carrier gas is arranged to supply carrier gas with a velocity of less than 50 m/s.

73. (Previously presented) The apparatus of Claim 61, wherein the at least one inlet for carrier gas is arranged to supply carrier gas with a velocity of less than 10 m/s.

74. (Previously presented) The apparatus of Claim 61, wherein the at least one inlet for carrier gas is arranged tangential to the longitudinal axis at a position between the feeding end and the delivery end of the feed device.

75. (Previously presented) The apparatus of Claim 61, wherein the at least one inlet for carrier gas is connected to a gas supply device providing an inflow of carrier gas to the air gap resulting in swirling motion of the carrier gas in the air gap with a swirl number > 0,5.

76. (Previously presented) The apparatus of Claim 61, wherein the at least one inlet for carrier gas is connected to a gas supply device providing an inflow of carrier gas to the air gap resulting in swirling motion of the carrier gas in the air gap with a swirl number > 1.

77. (Previously presented) The apparatus of Claim 61, wherein the at least one inlet for carrier gas is connected to a gas supply device providing an inflow of carrier gas to the air gap resulting in swirling motion of the carrier gas in the air gap with a swirl number > 2.

78. (Previously presented) The apparatus of Claim 61, wherein the length of the drying chamber is at least 3.5 times longer than the diameter of the drying chamber.

79. (Previously presented) The apparatus of Claim 61, wherein the inlet for drying gas is provided with a filter substantially sterilizing the drying gas.

80. (New) The method of Claim 32, wherein the inlet temperature of the carrier gas is in a range below 25°C.